The University of Chicago

THE ANCIENT CITY AND ITS SITE

A PART OF A DISSERTATION SUBMITTED TO THE FACULTY OF THE DIVISION OF THE HUMANITIES IN CANDIDACY FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

DEPARTMENT OF ORIENTAL LANGUAGES
AND LITERATURES
1936

By
ALLEN DIEHL ALBERT, Jr.

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The ancient Near East offers itself in many ways as a record of continuing development over an extraordinary space of time. Its value toward an understanding of religious progress has been largely affected by traditional dependence upon it.

Less familiar but quite as impressive is its character as an heritage of modern social and economic development. The latter fact was pointed out by Olmstead some years ago.[1] Since then several significant studies have been made, with that of Dubberstein on "Prices and Interest Rates in Babylonia 525-400 B.C." especially rich in thought provoking material.[2] The same author's short study of the social conditions accompanying the commercial prosperity of that period as presented to the Mid-West Branch of the American Oriental Society in March, 1936, gives promise of even more important studies.

Equally promising for studies in urbanism is the same mass of material. The significance of classical studies for this purpose has long been realized. That an inheritance of hundreds of years lay back of the earliest Greek developments is made evident by the most cursory glance at archaeological, literary and commercial evidence from the ancient Near East.

This study purposes briefly to discuss the factors underlying selection and development of city sites in the ancient Near East, particularly as they affected the cities of Babylonia and Assyria. Preliminary studies have been presented at several sessions of the American Oriental Society and its Mid-West Branch.

In the selection of a site for a military encampment the following factors are of importance in about the following order: Protection or Strategical Position, Drainage, Water, Forage, Fuel and Food. An ancient people on the move was not in many respects an army but it too looked for a site filling these specifications

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[1] A. T. Olmstead, "Materials for an Economic History of the Ancient Near East," Journal of Economic and Business History, II, No. 2 (February, 1930), 219-40.

[2] W. H. Dubberstein, "Prices and Interest Rates in Babylonia 625-400 B.C." (Doctor's dissertation, University of Chicago, 1934).

not only for temporary occupancy but also for a more permanent use.

Site in this sense and for the purpose of this discussion is to be sharply distinguished from location. The latter is the general area fixed by roads, rivers, other geographical factors, and other cities. Site is the immediate position occupied by a city within the area. Thus, the site of a city may be located not only in relation to other known factors but described in relationship to the city which occupies it without regard to anything beyond its immediate neighborhood.

Long ago Strabo spoke of ruined city sites in Mesopotamia as having artificial mounds, cisterns for water, canals, roads and bridges.[1] Most of such mounds today might be described in the same way. There are several hundred prehistoric surface sites in the region of the two rivers as well as larger mounds holding the ruins of more prominent cities.[2] In the vicinity of Nippur for example there are many little low mounds two or three meters in height which were originally small settlements or towers.[3]

Carchemish was built upon a low mound and where it was not high enough its original builders laboriously builded it up with earth brought in baskets.[4] A slight natural rise was utilized by the original settlers of al-Ubaid.[5] The mounds of Fara arise out of a sandy waste bordering on marshes nearby from which rise other low mounds.[6] The mound of a neolithic village near Persepolis is about six hundred feet long, three hundred wide and

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[1]H. C. Hamilton and W. Falconer, translators, The Geography of Strabo (London: Henry B. Bohn, 1854), xvi, 1,2.

[2]Henry Field, "The Antiquity of Man in Southwestern Asia," American Anthropologist, LII, 52.

[3]C. L. Fisher, Excavations at Nippur, Parts I and II. Babylonian Expedition of the University of Pennsylvania (Philadelphia: University of Pennsylvania, 1905-1906), p. 9.

[4]C. L. Woolley, Carchemish. Report of the Excavations at Jerablus on behalf of the British Museum, Part II, "The Town Defences" (London: British Museum, 1921), p. 35.

[5]C. J. Gadd, History and Monuments of Ur (London: Chatto and Windus, 1929), p. 15.

[6]W. Andrae, "Ausgrabungen in Fara und Abu Hatab," Mitteilungen der Deutchen Orient-Gesellschaft, XVI (1902).

is only ten to twelve feet high.[1] Jemdet Nasr, 18 miles from Kish northeast, is a thousand feet long by three hundred wide and rises only ten feet at its highest point out of the surrounding plain.[2] Tell Asmar is nearly hidden by the banks of a neighboring canal.[3] Khafaje is almost on a level with the surface.[4] The last site is interesting in that the town consists of three apparently unconnected mounds, very low and merging gradually into the plain.[5]

A few miles from Persepolis, a series of similar low mounds covers the ruins of Istakher.[6] The landscape in Mesopotamia is dotted with them and even the ruins of once great cities present much the same effect from a distance.[7]

It is apparent to one studying the topography of such sites that the original settlers seem to have deliberately selected such low lying mounds. Near by in almost all cases are higher lands, in many cases commanding the mounds selected. Nevertheless, except in rare isolated cases, these high lands are not settled until comparatively late times, while with only one notable exception, Assur,[8] all of the ancient city sites of Mesopotamia lie in lowlands. The majority of those cities which survived any length of time and developed into important centers lay in river valleys.

Two exceptionally clear examples serve to illustrate this tendency. The plain of Carchemish stretches along the right bank of the river facing down stream. The ground slopes up in all directions away from its site except to the south where the plain lengthens out and is commanded at the end of the valley by another city site, Tel el Amarna. Near by, so close that in its early

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[1]James Henry Breasted, Oriental Institute, University of Chicago Survey (Chicago: University of Chicago Press, 1933), XII, 312.

[2]Henry Field, The Field Museum--Oxford University Expedition to Kish, Mesopotamia, 1923-1929, Anthropology Leaflet 11 (Chicago: Field Museum of Natural History, 1929), p. 12.

[3]Breasted, op. cit., p. 363. [4]Ibid.

[5]Frankfort, Tell Asmar, I, 61.

[6]Breasted, op. cit., fig. 163.

[7]A. T. Clay, "Pushing Back History's Horizon," National Geographic, XXIX, 174, 193 ff., 199.

[8]Walter Andrae, "Zum Plan von Assur," Mitteilungen der Deutschen Orient-Gesellschaft, XXII, 52-61.

days a man could throw a stone into the midst of the settlement from it, was higher ground that was later included in the expanding city.[1]

Alisar was not nearly the highest site in its immediate neighborhood. Near by is the more elevated Kerkenes Dagh and at not too great a distance the Sivri, or pointed rock, upon the sides of which are two modern villages, and whose top contains the ruins of an Ottoman fortress. Also in the neighborhood of the Sivri is the mound of Kepen Huyuk. It like Alisar spurned the heights for the plain of the valley.[2]

The mounds, largely in river valleys, adjacent to swamps and marshes if not actually surrounded by them, were thus protected by a wall of water a good part of the year.[3] Isolated, in the middle of valleys, they could be surrounded on all sides and protected much as were the Swiss Lake Dwellers, or the settlers of Venice, a protection denied to the dwellers of high places.[4] Moats were constructed early in history to take the place of the natural walls of water in the dry times of the year. Except at Ur,[5] there are few references to any walls constructed by the neolithic mound dwellers.

Food was easily to be acquired from the rich alluvial flood plains when the waters receded and a supply of water for irrigation was never a problem under such circumstances.

In Palestine and in a few isolated sites in Anatolia caves would seem to have been original city sites.[6] Gezer was located

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[1]Woolley, Carchemish, II, 36 ff.

[2]H. H. Von der Osten, Explorations in Central Anatolia, Oriental Institute Publications, Vol. V (Chicago: University of Chicago Press, 1929).

[3]P. V. C. Baur and M. I. Rostovtzelf, The Excavation of Dura-Europos, Preliminary Report of Second Season of Work (Yale University Press, 1931), p. 3; Strabo, xv, 1, 18.

[4]Hans Henning Von der Osten, Richard A. Martin, and John A. Morrison, Discoveries in Anatolia 1930-31, Oriental Institute Communications No. 14 (Chicago: University of Chicago Press, 1933), p. 48; Woolley, Jerablus, II, 36; Hall, A Season's Work at Ur (London: Methuen and Co., 1930), p. 218.

[5]C. J. Gadd, History and Monuments of Ur (London: Chatto and Windus, 1929), p. 15; cf. Fisher, Nippur, p. 16.

[6]A. D. Albert, Jr., "The Hebrew City in Old Testament Times" (Master's dissertation, University of Chicago, 1931), pp. 3-5.

upon the site of an ancient cave city[1] equipped with many separate dwellings connected by passages and provided with an adequate water supply in the form of cisterns and a subterranean spring.[2] A large cave city near Beit Jibron was similarly elaborate[3] while Samaria was occupied both before and after Israelite times as a cave city.[4] Edrei, home of king Og of Bashan, was likewise built over an extensive underground city.[5] There was even one large cavern at Carchemish;[6] but in the valley of the Euphrates there are none of importance reported and they are scanty enough in the more rugged country of the Tigris.

Evidence, therefore, tends to show the original city sites of ancient Babylonia and Assyria to have been low mounds set in the floors of valleys, with their inhabitants depending upon the surrounding waters for protection and farming the deposits left by the floods in the drier seasons with the help of irrigation.

Such mounds tended to take on a characteristic form. It is true that as seen today, subject to the same weather conditions over a space of many centuries this is what might have been expected but the similarity of materials used and the general construction has accentuated this trend. Furthermore, the relative dimensions of the mounds have not been dependent upon weather conditions so much as upon the form of the city underlying the mound. Under these circumstances the form taken by mounds tends to take on significance.

The simple mound, rising out of a marshy or flooded plain, as described above, has well defined characteristics. It is longer than it is wide. This difference varies from two to one

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[1] R. A. A. Macalister, The Excavation of Gezer (London: Palestine Exploration Fund, 1912), I, 2.

[2] Ibid., p. 111; Macalister, A Century of Excavation in Palestine (New York: F. H. Revell Co., 1925), pp. 95-98.

[3] Ibid., pp. 217 f.

[4] G. A. Reisner, Harvard Excavation at Samaria (Cambridge: Harvard Press, 1924), p. 65.

[5] A. T. Olmstead, History of Palestine and Syria (New York: Charles Scribner's Sons, 1931), p. 210.

[6] Woolley, Jerablus, II, 69.

to two and a half to one.[1] The highest point on the mound is not in the middle like a sand-pile washed down by water but usually stands a third of the way from one end.[2] In shape, such a mound usually slopes abruptly from the highest point about half way to the edge of the mound from which point the slope becomes very gradual.[3] Erosion frequently cuts deep channels in the side.

This form sufficed for the village or watch tower, although for the latter the form was more likely to be a steep sided cone.[4] As the city grew, more territory had necessarily to be taken in and secondary high spots or crests were created. Sometimes these latter were completely separated from the main city mound and were obviously dependent villages or watch-towers.[5]

Frequently the mound is saddle shaped, with one high point slightly lower than the other connected by a ridge lower than either high point but higher than the lowest surfaces of the mound.[6] In some cases the intervening ridge is curved rather than straight, so that the mound becomes "U" shaped.[7] In rare cases mounds present a whale backed appearance without any point noticeably higher than the bulk of the crest.[8]

In many of the great city sites, a canal or river cut the

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[1]Breasted, op. cit., p. 324; Hall, A Season's Work at Ur, fig. 157; Gadd, Ur, Frontispiece; H. H. Von der Osten, Researches in Anatolia, Vol. I, Oriental Institute Publications, Vol. V (Chicago: University of Chicago Press, 1929), fig. 86.

[2]Hall, op. cit.; Von der Osten, op. cit.

[3]Robert William Rogers, A History of Babylonia and Assyria (New York: Abingdon Press, 1915), I, photo, 430; Gadd, op. cit., fig. 32,b; Von der Osten, op. cit., fig. 1; E. J. Banks, Bismya or the Lost City of Adab (New York: G. P. Putnam's Sons, 1912), photos, pp. 5, 419.

Note: Photographs of such small mounds may be found in any work on travel in Mesopotamia or in reports of preliminary surveys. See particularly J. Baikie, "The Cradle of Civilization," and A. T. Clay, "Pushing Back History's Horizon," National Geographic Magazine, XXIX, No. 2, February, 1916.

[4]Woolley, Jerablus, p. 36.

[5]Ibid., pl. 2; Field, Kish, Plan of Area.

[6]Woolley, Jerablus.

[7]Walter Andrae, "Die Engebung von Fara und Abu Hatab," Mitteilungen der Deutschen Orient-Gesellschaft, XVI, 25.

[8]Rogers, History . . . ., I, 163.

city in half and mounds of almost equal height arose on each side. In the case of Kish a canal and the Euphrates divided the city into three sections.[1] Nippur developed in two parts.[2] So also did Babylon.[3]

That these mounds should have taken on such characteristic shapes is due largely to the way in which the cities grew. The earliest, neolithic levels of many sites are found beneath the highest part of the mounds. It is true that there are many purely neolithic sites scattered all through Mesopotamia, and near Persepolis and Alisar, a little out of this area, actual settlements were found near by. At Tell Asmar, indeed, a still later settlement belonging to the period of Sargon of Akkad was found on the edge of the site which gave evidence of never having been occupied after.[4]

In general, however, it may be said that the oldest levels are to be found beneath the high point of the sites. So it was at Nippur when the temple ruins were excavated.[5] The excavation of the main group of buildings at Eshnunna revealed the earliest palace remains twenty feet from the surface of this low mound.[6] Sixty feet below the summit of the Kish mound were found its earliest remains.[7] It may be said, indeed, that this has been the rule where mounds have been so excavated. Only in the case of mounds showing a practically uninterrupted existence is this not the case for here it was possible to keep the temple-palace compound in better condition than the area occupied by private houses so that the debris that raised the level of the rest of the city left the original site comparatively low.

Above these early remains the other levels ascend in a continually progressing picture. At Alisar, above the neolithic

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[1]Field, Kish.

[2]Fisher, Nippur, pl. I; and Hall, op. cit., fig. 56.

[3]F. Wetzel, Die Stadtmauern von Babylon (Leipzig: J. C. Hinrichs'sche Buchandlung, 1930), pl. 81; Herodotus i. 180.

[4]Breasted, op. cit. p. 351. [5]Fisher, Nippur, pp. 2, 11.

[6]Breasted, op. cit., p. 348.

[7]Henry Field, "The Antiquity of Man in Southwestern Asia," American Anthropologist, XXXV, No. 1 (January-March, 1933), p. 57.

level found at almost eighty-five feet, came next several layers of the copper age. Bronze then took its place and so on until its final period.[1] At Kish, below the temple of Nebuchadnezzar, one of Hammurabi appeared. Still lower were pre-Sargonid remains.[2]

It is to be noted that in the cases mentioned the highest point was occupied by a temple. There is no accident in this. The acropolis was almost always occupied by the temple and palace and buildings appertaining to them. To realize the reason for this it is necessary to explore more thoroughly the method by which cities grew and are growing.

In the beginning, we have seen, original settlers took up their habitation upon a low mound. As the water or marsh which surrounded it lowered, either through a progressive drying up of the region or because of drainage canals and ditches, the city gradually flowed down the mound.[3] As the city expanded the original shrine and the palace of the chief or king tended to usurp more and more of the area of the early site.[4] As the old buildings of this character were more and more obviously inadequate and the houses round about were pulled down to make room for them, new temples and palaces were built on the smoothed off ruins of the old. Thus, the central location was in a constant process of expansion and elevation.[5]

Only after a long space of time, when at Carchemish, for example, the tell had risen about fifteen meters, was the city fortified.[6] When this was done walls were placed about the temple-palace compound only, thus making it a citadel while the outside area of the city continued to depend upon the marshes or water which had given the location its early protection. It is to be presumed that in case of desperate attack the whole population would find safety in the citadel. Because of its wide exca-

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[1] O.I.C., No. 14, p. 50. [2] Field, Kish, pp. 9 ff.

[3] O.I.C., No. 14, p. 50.

[4] Fisher, Nippur, p. 2; Ernest Mackay, A Sumerian Palace and the "A" Cemetery at Kish, Mesopotamia, Part II, Field Museum --Oxford University Expedition (Chicago: Field Museum of Natural History, 1925), p. 76.

[5] Woolley, Jerablus, pp. 40 f.; "Tepe Gawra," Bulletin of the American Schools of Oriental Research, No. 47 (October, 1932), p. 22.

[6] Woolley, Jerablus, pp. 48 f.

vation ancient Carchemish here is again the best guide as to this progress. After the citadel mound, two other bands of territory were included within walls as the city grew. However, since the original site had been on the bank of the river, expansion took place away from the river and along a small stream in preference to the river. Each set of walls in turn is equipped with a complete set of gates and the two outer ones with towers as well, testifying eloquently to the fact that when they were first built they stood at the edge of the city.[1]

Here, as elsewhere, the citadel walls continued to be kept up and even strengthened.[2] Besides serving as a final rallying point in case of attack, a keep, as it were, it is probable that such fortifications tended to preserve stability in government and certainly to protect the treasures of the palace and temple.[3] Again Carchemish presents an excellent picture of the expansion. It is almost as if successive layers were placed deliberately over the original mound, each overlapping the one beneath it. The citadel reveals four major early periods; the inner town three; the outer town two.[4]

In the case of Nippur the city made a slightly different growth. Instead of extending away from the channel or canal located on the western side of the temple mound, the city jumped over the obstacle and expanded west, establishing the greater part of the city on the opposite bank from the old compound. In time, only the temple was left on the eastern bank, even the palace and executive buildings having gone over to the west city. There they in turn were fortified into a new citadel.[5]

At Khafaje, when a new mound was actually created for the temple-palace compound the private houses were not slow in crowding its walls and even utilizing part of the wall for house walls.[6]

The explanation for the attraction of private dwellings toward such new developments as that of Khafaje and Nippur is probably both social and economic. The citadel was not only the

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[1] Ibid., II, pp. 38 f. [2] Ibid.

[3] Fisher, Nippur, p. 10, fig. 2.

[4] Woolley, Jerablus, II, pp. 38 f., 53 f., 65 ff.

[5] Fisher, Nippur, p. 16.

[6] Frankfort, Tell Asmar, p. 106.

center of safety but of the life of the city as well. In addition, the temple was the early banking house of the ancient city. Its storehouse, or at any rate a storehouse in close association with it, was "the storehouse" of the city.[1] It is only natural that the business district, in so far as it was centered, should be in close association.

The explanation of the oval rather than round shape of the mounds is to be found in the directions in which the cities expanded. Ancient cities, like modern ones, have a tendency to develop a long axis and grow along it and even main streets are early laid out so as to foster this movement. Plans of modern cities in the Near East clearly reveal this tendency.[2]

It is to be noted in this connection that the addition of extra territory and the creation of new high points did not, in any real sense, change the tendency of mounds to take on a typical pattern. With the exception of the saddle connecting such near areas, each mound or high place developed like the simple one crest mound.

The continuity of development of such sites was due to another well evidenced tendency. It has been noted that the citadel mound usually preserved its character throughout the history of the city. Similarly, street and house lines under normal circumstances also remained constant. The reasons for this are obvious. In the first place streets tend to take the most convenient route according to topography. Thus, barring unusual conditions, the same route would be taken between the citadel mound and the main gate under any regime. In addition, the layout of the street, paving, drains, the position of houses remaining would make the use of the old street far simpler than the creation of a new one.

Furthermore, the custom in the East has always been to make use of old house foundations so far as possible. Nor is this custom limited to that part of the world alone. For reasons of economy and convenience new houses everywhere are likely to

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[1]Fisher, Nippur, pl. 1.

[2]Roy Elston, Cook's Traveller's Handbook for Palestine and Syria (London: Simpkin Marshall, Ltd., 1929), plan of Damascus, p. 323; Guide to Palestine and Syria (3d ed.; Macmillan, 1905), Jerusalem, p. 15; Karl Baedeker, The Mediterranean (Leipzig: Karl Baedeker, 1911).

follow the lines of the older structures that have occupied the site. In the Near East in the last few years the writer has seen this process going on in three widely separated locations. Following the disastrous earthquakes of 1926, the houses in Nablus were constructed not only on what remained of the old walls but out of what materials could be salvaged. The same thing was to be seen in Damascus in certain sections of the city following the bombardment of 1926. In Istanboul such rebuilding goes on constantly due to fire losses.

In a country where wet ground was a real problem, complicated by very heavy rains, the use of old foundations had another very practical explanation. Use of old foundations of some depth prevented the walls from being undermined. Indeed, it has been reported that builders often sacrificed convenience to this need.[1] Tell Asmar presents an especially clear example of this[2] and the excavators have demonstrated that the principle has been followed up until the present time in Erbil, ancient Arbailu.[3] In Tepe Gawra the tendency has been observed.[4] In Nippur the custom prevailed,[5] and it is to be presumed that other locations would show the same scheme of building were areas of private houses to be excavated.

In addition to temples and private houses, most excavations have disclosed that palaces and gateways in particular and in some measure walls had a long continuity of use. Only when the destruction of the city was extraordinarily complete was there a new alignment throughout. Such a change was forced by the flood depositing the red earth level at Kish[6] and a destruction at Alisar was similarly complete.[7]

Such widespread destruction was, however, not the rule.

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[1]Frankfort, Tell Asmar, III, 4 f.

[2]Ibid., p. 2, fig. 1. [3]Ibid., pp. 5 f.

[4]Charles Bache, "Report on the Joint Excavation of Tepe Gawra," Bulletin of the American Schools of Oriental Research, LXI (1936).

[5]Fisher, Nippur, pp. 10, 12, n. 1.

[6]Henry Field, The Field Museum-- . . . . Kish, Anthropology Leaflet No. 11, p. 24.

[7]O.I.C., No. 14, pp. 36 f.

Only in rare cases were the houses of the great mass of the city destroyed. In the Old Testament narrative of Nebuchadnezzar's destruction of Jerusalem we are told:

> And he burned the house of the Lord, and the king's house, and all the houses of Jerusalem, even every great house burnt he with fire.[1]

What would seem to be meant is very clear. The conqueror destroyed the temple-palace compound and the great houses abutting on it. The larger part of the city, with the exception of these and the wall, was undisturbed. This is the testimony also from Tell Asmar. At the time of the Gutium, only the palace was burned while the private houses were continuously occupied.[2] The archaeologists' difficulty in finding clear stratification over a wide area graphically testifies to this fact.

In cases when the palace-temple compound went unoccupied for a considerable length of time, private houses were built over the ruins of these buildings.[3] When this occurred, or where a new dynasty brought with it a religion antipathetic to the old, the site of the temple and palace were permanently abandoned and a new high place was selected.[4] This is probably the explanation for mounds without a distinctly high place or crest though in certain cases such a form undoubtedly arose when the palace was rebuilt less often than the private houses due to a long continuing dynasty.[5]

Continuity of occupation of houses and acropolis and of use of streets, walls and gates had a profound effect upon the orientation of the cities of this region. This is well illustrated by the situation at Dura-Europos long after this time. The streets and ramparts are oriented according to the southern fashion,[6] that is with the corners of buildings to the points of the compass instead of the side, while the tower, product of the

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[1] II Kings 25:9. [2] Frankfort, Tell Asmar, III, 4, 23.

[3] Ibid., Vol. IV, "Section through Temple of Abu and Palace"; Ernest Mackay, A Sumerian Palace and the "A" Cemetery at Kish, Mesopotamia, Part II (Chicago: Field Museum of Natural History, 1925), p. 76.

[4] Breasted, op. cit., fig. 163.

[5] Frankfort, Tell Asmar, III, 65.

[6] Dura-Europus, Preliminary Report of 1st Season, 1928 (New Haven: Yale University Press, 1929), p. 7.

new comers is oriented in the northern way.[1] A similar, very interesting example comes from Tell Asmar. Here, though all other elements are oriented southern fashion, there is a temple from early dynastic times made according to the plan of northern temples with a single shrine and oriented northern.[2] The archaic Ishtar temple at Ashur presents the same picture as to orientation.[3] The town itself is oriented to the Tigris along its bank but becomes southern elsewhere.[4] Carchemish,[5] Kish,[6] Khafaje,[7] Persepolis,[8] Eshnunna,[9] Dur Sharrukin,[10] Tell Asmar,[11] Nippur,[12] Nineveh,[13] and Babylon[14] were definitely oriented in this southern fashion. So also was Shuruppak and here the excavators' camp oriented in the northern fashion makes a marked contrast to the older lines of the city.[15] Only Kalhu, the Calah of the Old Testament, appears to be oriented in the northern fashion throughout.[16] This is the more surprising since the most complete remains come without question from the Assyrian period.[17] Even Ur was southern.[18] So also was Tepe Gawra.[19]

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[1] Ibid., p. 28. [2] Frankfort, op. cit., III, 36.

[3] Olmstead, op. cit., map 1, p. 17.

[4] Andrae, Mitteilungen der Deutschen Orient-Gesellschaft, No. 22, p. 78.

[5] Woolley, Jerablus, Vol. II, pl. 3.

[6] Field, Kish, plan of area. [7] Breasted, op. cit., fig. 184.

[8] Ibid., fig. 163. [9] Ibid., fig. 179. [10] Ibid., fig. 188.

[11] Frankfort, op. cit., Vol. I, fig. 6.

[12] Fisher, Nippur, plan 14.

[13] R. C. Thompson and R. W. Hutchinson, A Century of Exploration at Nineveh (London: Luzac and Co., 1929), plans 2, 3, 5.

[14] Rogers, History. . . ., p. 310, map.

[15] Andrae, MDOG, XVII, plan, 44.

[16] A. H. Layard, Nineveh and Its Remains (London: John Murray, 1849), I, plan 3, 62.

[17] Olmstead, op. cit., map 4.

[18] C. L. Woolley, Ur of the Chaldees (London: Ernest Benn, 1929), plan of Ur.

[19] Speiser, "Tepe Gawra," Bulletin of the American Schools of Oriental Research, No. 54 (April, 1934), p. 16.

The significance of this material as to orientation cannot be fully understood until many more sites are excavated to much greater depth over a far greater extent of territory. Nevertheless, its importance to an understanding of the early founding of the cities of Babylonia and Assyria would seem to be great.

If, as seems to be the case, neolithic remains underlie most of the great cities of this area, and if, as also seems to be demonstrated, the tendency was for street and building lines, with the exception of temples and palaces, to remain constant, it would seem obvious that the early founders of these cities must have oriented their cities from the beginning in the southern fashion. Changes of orientation thus become extremely important. For example, Tell Asmar was founded by an early people using southern orientation and therefore probably Proto-Semitic.[1] When the Sumerians came in in early dynastic times they changed the temple to northern orientation. Later remains show southern orientation again in vogue. A similar picture is presented, we have seen, at Ashur. Persepolis, on the other hand, which might be presumed to show northern orientation because of the race and origin of its Achmaenid builders, appears oriented in exactly the fashion of the earliest people in the region.

The site of the original low mound upon which was the original nucleus of the ancient city became the focus from which the city spread out and naturally became the place of the palace of the king and the location of the temple. This was so generally the case, this grouping of official buildings into one area, that it is scarcely necessary to enlarge upon it. The plan of any ancient city which has been excavated shows this design plainly. In addition, a fragment of a clay tablet from the first half of the second millennium, a copy from a much earlier period, contains an ancient plan of such a compound with the parts labelled in cuneiform. The plan reveals another characteristic of this palace-temple area: It was surrounded by strong walls and beyond the walls were moats or wide canals. Frequently the palace itself was actually a keep, with walls many feet thick.[3] In other cases the cities were divided into several parts, each containing what was

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[1]Field, AA, XXXV, 60. [2]Fisher, Nippur, p. 12, pl. 1.

[3]Mackay, op. cit.; MDOG, XI, 11; Frankfort, op. cit., IV, 99.

in effect a strong point.[1]

In the modern world a perfect example of this type of specialization is furnished by the cité of Paris, the site of the original town, an island in the Seine, upon which now is located the palais de justice, old home of kings, the royal chapel and the great cathedral of Notre Dame.

Closely connected with these other state structures was the official storehouse or warehouse. Our Nippur map shows two of these and the business documents are rich in reference to them in almost every city.[2] The connection of this structure or structures with the palace and temple should not be surprising. The ancient temple was the banking house, it had large revenue, and it needed protection. Thus, as part of the temple offices, it had its part in the compound.

Quite naturally, from this citadel the streets radiated and continued the thoroughfares leading between the various elements of the confined area and the gates. Nebuchadnezzar leaves his own testimony to this arrangement:

> For Nabu, my lord, Ezida, his temple I rebuilt in Borsippa.
> From the great gate to the Shu-a (Babylon?) gate,
> From the shrine of destiny to the gate of _____
> I beautified the roadway, the procession street of
> the great son of Nabu, with bricks of stone.[3]

Only when there was an artificial compound, as at Khafaje, was this arrangement disturbed. Here, the old citadel having been abandoned, a mound of sand was heaped up of an oval shape upon which a new area was created. A street was laid out along the wall of this space and from this the streets of the town reached out.[4] Nevertheless, in time, houses crowded the wall and the streets ran as extensions into the citadel.

Under such circumstances of growth the grid-iron plan of streets, in so much as it took in the whole plan in the sense of

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[1] Herodotus i. 180; R. Koldewey, Die Tempel von Babylon und Borsippa (Leipzig, 1911), pp. 4 f.; O.I.C., No. 14, p. 13.

[2] Babylonian Expedition of the University of Pennsylvania (Philadelphia: University of Pennsylvania), II, 61: Koldewey, op. cit., pp. 56, 73; Frankfort, Tell Asmar, IV, 32.

[3] Koldewey, op. cit., pp. 56, 73.

[4] Frankfort and Preusser, Tell Asmar, IV, 32; III, 63.

a modern sub-division, was as impossible as it is to the city of normal growth in the present day. Cities that grow naturally, even in this era, as Minneapolis, Rochester, New York, London, Dresden, Chicago for example, are based originally not upon a street true to the point of the compass but upon one which follows a natural boundary or is the route to an older city, river ford or other factor of location. Nevertheless, later streets tend to correct this and run true, while cross streets run usually at right angles to one or other or both. The final design, thus, where a river, lake, or sea is the chief geographical feature of the site, tends to base itself at its center upon a fairly sharp "A". Such a development is traceable at Ashur, for example, where the original line was along the river but where later streets corrected the line to southern orientation.[1]

The cross bar of the "A" is usually extended and the citadel-palace-temple mound tends to be where this meets the original street. The reason for this last is evident. Streets radiate from the original mound down hill. The second street is frequently the road to other cities. In any case, it tends to skirt the lower part of the mound rather than run over it and meet the original street beyond the mound. The protective gate is placed at this intersection. Parenthetically, this operates to fix the limit of the city at this point and explains the fact that the citadel mound is usually much nearer one end of the site than the other.

In the revelation of such lines excavations have been of little use in the past since streets have held an interest subordinate to temple, palace, gate and walls in the purpose of most excavators. Fragments are of little value because of the meandering nature of thoroughfares. Best of all are air photographs when properly executed. Publication of such photographs will go far toward disclosing the factors of growth of the ancient city.

Except for deliberately straightened and levelled streets, these must not be thought of as being other than crooked. Highways follow the easiest way topographically and take advantage of every curve of the ground. Herodotus tells us that the streets of ancient Babylon, "All run in straight lines, not only those

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[1] MDOG, XXII, 78, for Nineveh; Olmstead, op. cit., map 8, p. 327.

parallel to the river, but also the cross streets which lead down to the water side."[1]

From the excavators of Babylon comes also a plan and observation showing a perfectly worked out grid-iron plan.[2] It must be remarked that scarcely enough has been excavated of that great city to make such assertions conclusive. In any case, this was an exceptional city. It received a very thorough destruction under the hand of Sennacherib:

> After I had destroyed Babylon, had smashed the gods thereof, and had struck down its people with the sword--that the ground of the city might be carried off, I removed its ground and had it carried to the Euphrates, to the sea. Its dust reached unto Dilmun.[3]

Essarhaddon's reconstruction might be presumed to have pretty well disregarded the old lines of the city and it received a second very thorough transformation under Nebuchadnezzar.

The usual city of the ancient or modern Near East, however, much more nearly approaches the design of a long, narrow spider-web with the citadel mound as the center. The main strands take the form of an "A" in most cases but this is lost sight of in the myriad of lesser streets and alleys that converge upon the citadel and run concentrically around it.[4] We may not conclude, however, that these cross or concentric streets present any effect of continuity. Like the spider-web, only the radiating strands were continuous. The others jogged, ended in dead ends, and ran up culs de sac.[5] Many of these, it is obvious, merely served as exits for properties otherwise cut off. Nevertheless, these smaller side streets were used for property descriptions without hesitation, arguing for a continuity and formal existence.[6]

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[1]Herodotus i. 180.

[2]Robert Koldewey, Das Ischtar-Tor in Babylon (Leipzig: J. C. Hinrichs, 1918), plan; MDOG, VI, 3; XIX, 7.

[3]Daniel David Luckenbill, Ancient Records of Assyria and Babylonia (Chicago: University of Chicago Press, 1926), II, No. 438, 185.

[4]Frankfort and Preusser, Tell Asmar, III, 63-73, fig. 54.

[5]Gadd, Ur, p. 170; Frankfort and Preusser, op. cit., III, plan, 70; MDOG, XXII, 78; Frankfort and Preusser, op. cit., III, figs. 1, 13.

[6]Analecta Orientalia, VIII (Roma: Pontificio Instituto Biblico, 1931), 2; Albert T. Clay, Babylonian Records in the Li-

Many of what are called streets, and so indicated in plans, are hardly wide enough to justify the title. The great street built by Sennacherib was seventy-eight feet wide, a respectable boulevard in any city.[1] The usual run of streets were, apparently, between five and six meters wide.[2] The lanes and side streets were mere pathways, varying from as narrow as one and a half meters up to two and a half.[3]

Such streets, and apparently the lanes as well, were usually paved, either with cobble-stones or less pretentiously by beating down the earth until it was rock hard. Down the center usually ran a drain of burnt brick, sometimes with side drains entering from houses on each side.[4]

Almost every city had a great festival street, usually reaching between the palace and the chief temple.[5] The street built by Sennacherib in Nineveh was of this character.[6] Most famous of all such streets was the great Aibur-shaba of Babylon. Builded by Nabopollassar,[7] it was magnified and embellished by Nebuchadnezzar.[8] The paving and drainage was most elaborately carried out, including the raising of the whole surface, and over it he erected a newly rebuilt and magnificently decorated gate of Ishtar.[9]

It must be obvious from the foregoing that the rulers had a definite purpose in mind when they undertook such works. In-

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brary of J. Pierpont Morgan (New York: Private Printing, 1912), II, 20, 49.

[1]Luckenbill, A.R.A.B., II, 195, No. 474.

[2]Robert Koldewey, Die Konigsburgen von Babylon, Erster Teil Die Sudburg (Leipzig: J. C. Hinrichs), p. 81.

[3]Hall, A Season's Work at Ur, p. 212; Woolley, Carchemish, Vol. II, pl. 19; Frankfort and Preusser, Tell Asmar, I, 106.

[4]Zeitschrift fur Assyriologie und verwandte Gebiet (Leipzig: O. Schutze, 1886-1931), II, 126 f.; MDOG, LI, 3; Breasted, op. cit., p. 370; OIC No. 14, pp. 36 f.; Frankfort and Preusser, Tell Asmar, I, 18, 85.

[5]Analecta Orientalia, VIII, 2; BRM, II, 49; Koldewey, Sudburg, p. 81.

[6]ARAB, II, 195, No. 474. [7]MDOG, IX, 11.

[8]IR, 57, col. viii; 52, 56, col. v.

[9]MDOG, IX, 11; ZA, II, 126 f.

scriptions of the Sargonid kings of Assyria and the Chaldean dynasty in Babylon in particular reveal definite city planning. Excavation and investigation of earlier periods indicate this to have been the case elsewhere. Study of Assyrian terms for street, road, square, and the like show a formal, informed physical organization of city functions.[1]

Drainage, water-supply, religious centers, parks and above all defences likewise occupied the attention of rulers but these are factors lying beyond the scope of this study.

So too are revelation of how the ancient citizen lived, with his banking-house, his markets and shops, his schools, his religious centers, and above all his "house with five rooms and bath, fully modern."

That all these elements had immense influence upon his development, cultural and religious, we cannot doubt. The culture of the ancient Near East was primarily urban. The importance of this fact to a study of the background of the religions that sprang from its soil has only begun to be realized. The desert was in the dim background when the intensely urban Deuteronomic reform came into being. It is in the cities of the ancient Near East that we must look for the cultural incubator of modern civilization.

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[1] A. D. Albert, Jr., "Some Evidence for Ancient City Planning," abstract in JAOS, Vol. LII, No. 3 (September, 1932); Breasted, op. cit., n., p. 393.